IN THE CLAIMS:

Please amend the claims as follows:

1. (Previously Presented): A method of depositing metallic film layers on a substrate, comprising:

introducing a first gas into a vacuum chamber wherein the first gas is introduced through an first inlet port disposed proximate a sputtering target disposed inside the vacuum chamber, wherein the sputtering target is made of a material selected from a group consisting of titanium, tantalum and tungsten;

applying power to the sputtering target and a coil disposed between the sputtering target and the substrate positioned on a substrate support member in the presence of only the first gas; and

introducing a second gas into the chamber to deposit the metal containing film layers, wherein the second gas is introduced through an second inlet port disposed proximate a surface of the substrate in the presence of the power applied to the sputter target and the coil, wherein the second gas from the second inlet port is supplied through a gap defined between a shield ring and the substrate support member.

2. (Original) The method of claim 1, further comprising biasing the substrate and the coil.

3. (Original) The method of claim 1, wherein the second gas is introduced proximate an upper surface of the substrate.

4. (Original) The method of claim 1, wherein the power is applied to the sputtering target and the coil to initiate plasma.

5. (Cancelled)

6. (Previously Presented) The method of claim 1, wherein the first gas is introduced to encourage gas stabilization.

7. (Previously Presented) The method of claim 1, wherein the power is applied to the sputtering target and the coil following a controlled power ramp process.

8. (Original) The method of claim 1, wherein the first gas is argon.

9. (Original) The method of claim 1, wherein the second gas is nitrogen.

10. (Original) The method of claim 1, wherein the first gas is inert.

11. (Original) The method of claim 1, wherein the second gas is active.

12. (Original) The method of claim 1, wherein the second gas is introduced after the power is applied to the sputtering target and the coil.

13. (Cancelled)

14. (Original) The method of claim 1, wherein the coil is made of a material selected from a group consisting of titanium, tantalum and tungsten.

15. (Previously Presented) The method of claim 1, wherein introducing the first gas into the vacuum chamber wherein the first gas is introduced proximate the sputtering target comprises creating a higher partial pressure of the first gas proximate the sputtering target than at the upper surface of the substrate.

16. (Previously Presented) The method of claim 1, wherein introducing the second gas into the chamber wherein the second gas is introduced proximate the upper surface of the substrate comprises creating a higher partial pressure of the second gas proximate the upper surface of the substrate than at the sputtering target.

17. (Previously Presented) The method of claim 1, wherein introducing the second gas into the chamber wherein the second gas is introduced proximate the upper surface of the substrate comprises:

creating the gap between the shield ring and a shield support member when the shield ring is supported by the substrate support member, wherein the shield ring, the shield support member and the substrate support member are disposed inside the vacuum chamber.

18. (Previously Presented) The method of claim 1, wherein the second gas is introduced through the second inlet port centrally disposed through a substrate support member configured to support the substrate.

19. (Previously Presented) A method of depositing metallic film layers on a substrate, comprising:

creating a higher partial pressure of an inert gas inside a vacuum chamber through a first inlet port disposed proximate a sputtering target disposed therein than at an upper surface of the substrate positioned on a substrate support member disposed in the vacuum chamber;

initiating a plasma within the chamber by applying a power to the sputter target and a coil disposed between the sputtering target and the substrate; and

creating a higher partial pressure of an active gas introduced through a second inlet port disposed proximate the upper surface of the substrate than at the sputtering target to deposit the metal containing film layers in the presence of the power applied to the sputter target and the coil, wherein the active gas from the second inlet port is supplied through a gap defined between a shield ring and the substrate support member.

20. (Original) The method of claim 19, further comprising biasing a coil and the substrate, wherein the coil is disposed between the sputtering target and the substrate.

21. (Original) The method of claim 19, wherein the inert gas is argon and the active gas is nitrogen.

22. (Original) The method of claim 19, wherein the sputtering target is made of a material selected from a group consisting of titanium, tantalum and tungsten.

23. (Previously Presented) The method of claim 20, wherein the coil is made of a material selected from a group consisting of titanium, tantalum and tungsten.

24. (Previously Presented) The method of claim 19, wherein creating the higher partial pressure of the active gas introduced through the second inlet port disposed proximate the upper surface of the substrate comprises:

creating the gap between the shield ring and a shield support member when the shield ring is supported by the substrate support member, wherein the shield ring, the shield support member and the substrate support member are disposed inside the vacuum chamber.

25. (Previously Presented) The method of claim 19, wherein creating the higher partial pressure of the active gas proximate the upper surface of the substrate comprises introducing the active gas through the second inlet port centrally disposed through a substrate support member configured to support the substrate.

26. (Previously Presented) The method of claim 20, wherein initiating the plasma comprises applying power to the sputtering target and the coil in the presence of only the inert gas.

27. (Previously Presented) A method of depositing metallic film layers on a substrate, comprising:

creating a higher partial pressure of argon inside a vacuum chamber through a first inlet port disposed proximate a sputtering target disposed therein than at an upper surface of the substrate positioned on a substrate support member disposed in the vacuum chamber, wherein the sputtering target is made of a material selected from a group consisting of titanium, tantalum and tungsten;

applying power to the sputtering target and a coil disposed between the sputtering target and the substrate, wherein the coil is made of a material selected from a group consisting of titanium, tantalum and tungsten;

creating a higher partial pressure of nitrogen through a second inlet port disposed proximate the upper surface of the substrate than at the sputtering target to deposit the metal containing film layers in the presence of the power applied to the sputter target and the coil, wherein the nitrogen from the second inlet port is supplied through an annular gap defined between a shield ring and the substrate support member; and

biasing the coil and the substrate.

28. (Previously Presented) A method of depositing metallic film layers on a substrate, comprising:

introducing a gas mixture into a vacuum chamber through a first inlet port disposed proximate a sputtering target disposed inside the vacuum chamber;

creating a higher partial pressure of an inert gas inside the vacuum chamber proximate the sputtering target disposed therein than at an upper surface of the substrate positioned on a substrate support member;

applying power to the sputtering target and a coil disposed between the sputtering target and the substrate; and

introducing a second gas into the chamber through a second inlet port disposed proximate the upper surface of the substrate to deposit the metal containing film layers in the presence of the power applied to the sputter target and the coil, wherein the

second gas from the second inlet port is supplied through an annular gap defined between a shield ring and the substrate support member.

29. (Original) The method of claim 28, wherein the gas mixture comprises argon and nitrogen, and the second gas comprises nitrogen.

30. (Original) The method of claim 28, further comprising biasing the substrate and the coil.

31. (Original) The method of claim 28, wherein the coil is made of a material selected from a group consisting of titanium, tantalum and tungsten.

32. (Original) The method of claim 28, wherein the sputtering target is made of a material selected from a group consisting of titanium, tantalum, and tungsten.